

Demographics		Clinical		Psychological		Social		Family		Health		Quality of Life			
Variable	Mean (SD)	Variable	Mean (SD)	Variable	Mean (SD)	Variable	Mean (SD)	Variable	Mean (SD)	Variable	Mean (SD)	Variable	Mean (SD)		
Age	45.2 (12.5)	Gender	Male (55%)	Marital Status	Married (60%)	Employment	Employed (50%)	Income	\$35,000 (15,000)	Health Insurance	Private (65%)	Chronic Conditions	2.5 (1.5)	Life Satisfaction	4.2 (1.8)
Education	12.8 (1.5)	Religion	Christian (70%)	Stress Level	High (60%)	Substance Use	None (80%)	Family Size	3.2 (1.2)	Parenting Style	Authoritative (55%)	Physical Activity	Low (60%)	Parental Involvement	High (65%)
Marital Status	Married (60%)	Parental Involvement	High (65%)	Child's School Performance	Good (70%)	Child's Social Skills	Good (60%)	Child's Emotional Stability	Good (75%)	Child's Academic Achievement	Good (70%)	Child's Self-Esteem	Good (75%)	Child's Peer Relationships	Good (60%)
Employment	Employed (50%)	Child's School Performance	Good (70%)	Child's Social Skills	Good (60%)	Child's Emotional Stability	Good (75%)	Child's Academic Achievement	Good (70%)	Child's Self-Esteem	Good (75%)	Child's Peer Relationships	Good (60%)	Child's Future Outlook	Positive (70%)
Income	\$35,000 (15,000)	Child's Social Skills	Good (60%)	Child's Emotional Stability	Good (75%)	Child's Academic Achievement	Good (70%)	Child's Self-Esteem	Good (75%)	Child's Peer Relationships	Good (60%)	Child's Future Outlook	Positive (70%)	Child's Life Satisfaction	4.5 (1.5)
Health Insurance	Private (65%)	Child's Emotional Stability	Good (75%)	Child's Academic Achievement	Good (70%)	Child's Self-Esteem	Good (75%)	Child's Peer Relationships	Good (60%)	Child's Future Outlook	Positive (70%)	Child's Life Satisfaction	4.5 (1.5)	Child's Overall Well-being	Good (75%)
Chronic Conditions	2.5 (1.5)	Child's Academic Achievement	Good (70%)	Child's Self-Esteem	Good (75%)	Child's Peer Relationships	Good (60%)	Child's Future Outlook	Positive (70%)	Child's Life Satisfaction	4.5 (1.5)	Child's Overall Well-being	Good (75%)	Child's Future Goals	Clear (65%)
Life Satisfaction	4.2 (1.8)	Child's Self-Esteem	Good (75%)	Child's Peer Relationships	Good (60%)	Child's Future Outlook	Positive (70%)	Child's Life Satisfaction	4.5 (1.5)	Child's Overall Well-being	Good (75%)	Child's Future Goals	Clear (65%)	Child's Life Satisfaction	4.5 (1.5)
Parental Involvement	High (65%)	Child's Peer Relationships	Good (60%)	Child's Future Outlook	Positive (70%)	Child's Life Satisfaction	4.5 (1.5)	Child's Overall Well-being	Good (75%)	Child's Future Goals	Clear (65%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Physical Activity	Low (60%)	Child's Future Outlook	Positive (70%)	Child's Life Satisfaction	4.5 (1.5)	Child's Overall Well-being	Good (75%)	Child's Future Goals	Clear (65%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Parental Involvement	High (65%)	Child's Life Satisfaction	4.5 (1.5)	Child's Overall Well-being	Good (75%)	Child's Future Goals	Clear (65%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Physical Activity	Low (60%)	Child's Overall Well-being	Good (75%)	Child's Future Goals	Clear (65%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Parental Involvement	High (65%)	Child's Future Goals	Clear (65%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Physical Activity	Low (60%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Parental Involvement	High (65%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Physical Activity	Low (60%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Parental Involvement	High (65%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Physical Activity	Low (60%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Parental Involvement	High (65%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Physical Activity	Low (60%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Parental Involvement	High (65%)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)	Child's Life Satisfaction	4.5 (1.5)
Physical Activity	Low (60%)														

In re application of

Attorney Docket Q64375

Group Art Unit: Not Assigned

Examiner: Not Assigned

For: MULTIPLIER ARRANGEMENT, SIGNAL MODULATOR AND TRANSMITTER

Commissioner for Patents
Washington, D.C. 20231

Prior to examination, please amend the above-identified application as follows:

Please insert the following section headings:

Page 1,after the title, insert the heading:

before the fourth paragraph beginning with "It is therefore an object" insert the heading:

Page 3, before the fourth paragraph beginning with "The above mentioned" insert the heading:

Brief Description of the Drawings

Page 4, before the third paragraph beginning with "A signal modulator" insert the heading:

Detailed Description of the Invention

IN THE CLAIMS:

Please enter the following amended claims:

3. (Amended)Multiplier arrangement (MUXER) according to claim 1 characterised in that said multiplier arrangement (MUXER) is further adapted to receive a set of differential high frequency local oscillator signals (LO1-LO3,LO2-LO4,LO3-LO1,LO4-LO2), said multiplier arrangement (MUXER) thereby includes a pair of output terminals (outmux1,outmux2) on which said high-frequency phase vector (PV) is provided as a differential high-frequency phase vector.

8. (Amended)Signal modulator (SM) adapted to generate a high-frequency output signal from analog phase information, said signal modulator including

- a pair of input terminals (SM1, SM2) to which said analog phase information is provided
- a quadrature generator (QG) adapted to generate a set of high-frequency local oscillator signals (LO1,LO2,LO3,LO4), which are 90 degrees in phase shifted with respect to each other,

- a multiplier arrangement (MUXER) adapted to receive said analog phase information and said set of high-frequency local oscillator signals and to generate from it a high-frequency phase vector (PV),

characterised in that

- said multiplier arrangement is further adapted in accordance with claim 1
- said signal modulator further includes an envelope limiter (EL) adapted to transform said high-frequency phase vector into said high-frequency output signal .

9. (Amended)Signal modulator (SM) according to claim 4 characterised in that said signal modulator (SM) includes a control circuit (CC) adapted to receive said phase signal (ϕ) and to derive therefrom said respective control signals (c1,c2,c3,c4) for provision to said multiplier arrangement.

12. (Amended)Transmitter (TX) including

- a transmit data source adapted to deliver transmit data to
- a phase accumulator (PAC) of said transmitter (TX) , said phase accumulator (PAC) being adapted to determine from said transmit data a phase signal (ϕ) for delivery to
- an analog pulse shaper (BAP) of said transmitter (TX), said analog pulse shaper being adapted to generate from said phase signal (ϕ) analog phase information for delivery to

- a signal modulator (SM) of said transmitter being adapted to generate a high-frequency output signal from said analog phase information for delivery to
 - a power amplifier (PA) of said transmitter being adapted to amplify said high-frequency output signal for further transmission to a receiver
- characterised in that
- said analog pulse shaper is further adapted to generate said analog phase information as two balanced analog signals (B,B),
 - said signal modulator is further adapted in accordance with claim 9.

IN THE ABSTRACT:


Please delete the present Abstract of the Disclosure and replace it with the following new Abstract of the Disclosure.

Variable	Mean	SD	Min	Max
Age	34.5	10.2	21	55
Gender	Male	Female		
Marital status	Married	Single		
Education	High school	College		
Occupation	Manager	Worker		
Income	\$10,000	\$20,000		
Health status	Good	Fair		
Exercise frequency	Weekly	Monthly		
Stress level	Low	High		
Sleep quality	Good	Poor		
Dietary habits	Healthy	Unhealthy		
Alcohol consumption	None	Occasional		
Tobacco use	Non-smoker	Smoker		
Family size	2	3		
Work hours	40	50		
Commuting time	30	45		
Home ownership	Owner	Renter		
Neighborhood safety	Safe	Unsafe		
Access to green spaces	Yes	No		
Proximity to schools	Close	Far		
Public transportation	Good	Poor		
Crime rate	Low	High		
Weather conditions	Good	Poor		
Local economy	Strong	Weak		
Community resources	Rich	Poor		
Healthcare access	Good	Poor		
Quality of life	High	Low		

REMARKS

Entry and consideration of this Amendment is respectfully requested.

Respectfully submitted,


David J. Cushing
Registration No. 28,703

SUGHRUE, MION, ZINN,
MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, D.C. 20037-3213
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

Date: May 16, 2001

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The specification is changed as follows:

Please insert the following section headings:

Page 1, after the title, insert the heading:

Background of the Invention

before the fourth paragraph beginning with "It is therefore an object" insert the heading:

Summary of the Invention

Page 3, before the fourth paragraph beginning with "The above mentioned" insert the heading:

Brief Description of the Drawings

Page 4, before the third paragraph beginning with "A signal modulator" insert the heading:

Detailed Description of the Invention

IN THE CLAIMS:

The claims are amended as follows:

3. (Amended) Multiplier arrangement (MUXER) according to claim 1 ~~or claim 2~~ characterised in that said multiplier arrangement (MUXER) is further adapted to receive a set of differential high frequency local oscillator signals (LO1-LO3, LO2-LO4, LO3-LO1, LO4-LO2),

said multiplier arrangement (MUXER) thereby includes a pair of output terminals (outmux1,outmux2) on which said high-frequency phase vector (PV) is provided as a differential high-frequency phase vector.

8. (Amended)Signal modulator (SM) adapted to generate a high-frequency output signal from analog phase information, said signal modulator including

- a pair of input terminals (SM1, SM2) to which said analog phase information is provided
- a quadrature generator (QG) adapted to generate a set of high-frequency local oscillator signals (LO1,LO2,LO3,LO4), which are 90 degrees in phase shifted with respect to each other,
- a multiplier arrangement (MUXER) adapted to receive said analog phase information and said set of high-frequency local oscillator signals and to generate from it a high-frequency phase vector (PV),
characterised in that
 - said multiplier arrangement is further adapted in accordance to ~~any of the claims 1 to 3~~ with claim 1
 - said signal modulator further includes an envelope limiter (EL) adapted to transform said high-frequency phase vector into said high-frequency output signal .

9. (Amended)Signal modulator (SM) according to ~~claims 4 and 8~~ claim 4 characterised in that said signal modulator (SM) includes a control circuit (CC) adapted to receive said phase signal (ϕ) and to derive therefrom said respective control signals (c1,c2,c3,c4) for provision to said multiplier arrangement.

12. (Amended)Transmitter (TX) including

- a transmit data source adapted to deliver transmit data to
- a phase accumulator (PAC) of said transmitter (TX) , said phase accumulator (PAC) being adapted to determine from said transmit data a phase signal (ϕ) for delivery to
- an analog pulse shaper (BAP) of said transmitter (TX), said analog pulse shaper being adapted to generate from said phase signal (ϕ) analog phase information for delivery to
- a signal modulator (SM) of said transmitter being adapted to generate a high-frequency output signal from said analog phase information for delivery to
- a power amplifier (PA) of said transmitter being adapted to amplify said high-frequency output signal for further transmission to a receiver

characterised in that

- said analog pulse shaper is further adapted to generate said analog phase information as two balanced analog signals (B,B),
- said signal modulator is further adapted in accordance ~~to any of the claims 9 to 11~~ with claim 9.

The abstract is changed as follows:

A multiplier arrangement (MUXER) is adapted to generate from analog phase information and from high-frequency local oscillator signals, components of a high-frequency phase vector (PV), and to synthesise said high-frequency phase vector (PV) from said components within a summing means is further adapted to provide said high-frequency phase vector (PV) as a vector which is making an excursion alongside the contours of a square within the complex plane during a first category of predetermined transitions of a phase signal (φ) on which said analog phase information is dependent. A signal modulator including such a multiplier arrangement as well as a transmitter are described as well.